



# Department of Defense DIRECTIVE

NUMBER 4540.5

February 4, 1998

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ATSD(NCB)

SUBJECT: Logistic Transportation of Nuclear Weapons

References: (a) DoD Directive 4540.5, "Movement of Nuclear Weapons by Noncombat Delivery Vehicles," June 14, 1978 (hereby canceled)  
(b) Title 10, United States Code  
(c) DoD 5025.1-M, "DoD Directives System Procedures," August 1994, authorized by DoD Directive 5025.1, June 24, 1994  
(d) DoD Directive 3150.2, "DoD Nuclear Weapon System Safety Program," December 23, 1996  
(e) through (h), see enclosure 1

## 1. REISSUANCE AND PURPOSE

This Directive:

1.1. Reissues reference (a) to update policy and responsibilities for the logistic transport of nuclear weapons under reference (b).

1.2. Authorizes the publication of the "DoD Nuclear Weapon Transportation Manual," consistent with reference (c), to provide guidance for the logistic transport of nuclear weapons.

1.3. Integrates DoD policy and responsibilities for the logistic transport of nuclear weapons with the safety requirements in reference (d), the security requirements in references (e) through (g), and the use control requirements in reference (h).

## 2. APPLICABILITY AND SCOPE

This Directive:

2.1. Applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, and the Defense Agencies (hereafter referred to collectively as "the DoD Components").

2.2. Does not apply to the transport of nuclear weapon limited-life components.

### 3. DEFINITIONS

Terms used in this Directive are defined in enclosure 2.

### 4. POLICY

It is DoD policy that:

4.1. Nuclear weapons require special consideration because of their political and military importance and the potential consequences of an accident, incident, or unauthorized act.

4.2. The DoD Components shall take precautions to ensure that a nuclear weapon movement has minimal impact on public health, safety, and the environment.

4.3. DoD nuclear weapon system safety policy, DoD nuclear weapon system safety standards, and DoD nuclear weapon security policy and criteria shall apply to nuclear weapon transport operations.

4.4. Nuclear weapon movements shall be kept to the minimum consistent with military requirements.

4.5. Nuclear weapon transportation operations shall be conducted through the transportation modes and movement routes that balance safety, security, and military requirements.

4.6. The movement by air of nuclear weapons that contain high explosives other than insensitive high explosives (IHE) should be approved by the Secretary of the Military Department or a Commander of a Combatant Command, or their delegated commanders.

4.7. Procedures, equipment, and facilities involved in the transport of nuclear

weapons shall be certified for such transport.

4.8. Personnel and organizations involved in the transport of nuclear weapons shall be trained and certified for the activities they perform.

4.9. U.S. custody of nuclear weapons shall be maintained at all times during logistic movements. That requirement shall not be waived.

4.10. A commander may deviate from logistic transport policy when the loss of a weapon's custody is imminent or when the weapon may be exposed to an abnormal environment.

4.11. In areas outside the continental United States, command-disable procedures shall be used if loss of the weapon is imminent.

## 5. RESPONSIBILITIES

5.1. The Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs, under the Under Secretary of Defense for Acquisition and Technology, shall:

5.1.1. Be responsible for policy and technical matters associated with the transportation of nuclear weapons.

5.1.2. Serve as the DoD principal point of contact for nuclear weapon transportation matters with the DoD Components, the Department of Energy (DoE), the Department of State, the Joint Nuclear Weapons Council, and other Government Agencies.

5.1.3. Ensure that the Director, Defense Special Weapons Agency, shall:

5.1.3.1. Provide technical support, advice, and assistance to the DoD Components on the transport of nuclear weapons, when requested.

5.1.3.2. Serve as the logistic transport coordinator between the DoD Components for intercommand movements and between the Department of Defense and the DoE.

5.1.3.3. Conduct safety and security assessments on nuclear weapon transportation, when requested.

5.2. The Chairman of the Joint Chiefs of Staff shall:

5.2.1. Coordinate directly with the DoD Components on nuclear weapon transportation matters.

5.2.2. Ensure that nuclear weapons technical inspections examine nuclear weapon transport operations.

5.2.3. Establish procedures for the maintenance of accountability during nuclear weapon transport operations.

5.2.4. Prescribe the reporting procedures to be used when nuclear weapons are transported.

5.3. The Secretaries of the Military Departments shall:

5.3.1. Implement DoD nuclear weapon transportation policies.

5.3.2. Develop procedures for the transport of nuclear weapons.

5.3.3. Evaluate, authorize, and approve the transport modes and movement routes that balance safety, security, and military requirements for nuclear weapons in their custody.

5.3.4. Conduct assessments of nuclear weapon transport operations, as necessary.

5.3.5. Approve all movements conducted by air of nuclear weapons in their custody that contain high explosives other than IHE. Approval authority may be delegated to commanders of major Service commands.

5.3.6. Ensure that procedures, equipment, facilities, and organizations involved in the transport of nuclear weapons are certified for that purpose.

5.3.7. Ensure that personnel involved in the transport of nuclear weapons are applicably trained.

5.4. The Secretary of the Air Force shall maintain a Prime Nuclear Airlift Force capability to conduct the logistic transport of nuclear weapons.

5.5. The Commanders of the Combatant Commands shall:

5.5.1. Implement DoD nuclear weapon transportation policies.

5.5.2. Develop procedures, as required for their area of operations, for the transport of nuclear weapons.

5.5.3. Evaluate, authorize, and approve the transport modes and movement routes that balance safety, security, and military requirements for nuclear weapons in their custody.

5.5.4. Conduct assessments of nuclear weapon transport operations, as necessary.

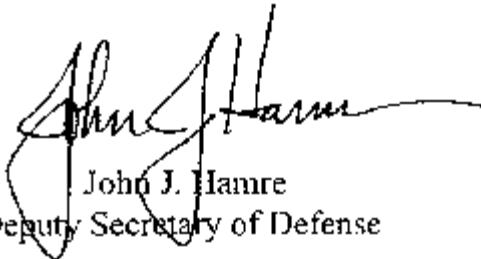
5.5.5. Approve all movements conducted by air of nuclear weapons in their custody that contain high explosives other than IHE. Approval authority may be delegated to Service component commanders.

5.5.6. Ensure that procedures, equipment, facilities, and organizations involved in the transport of nuclear weapons are certified for such transport.

5.5.7. Ensure that personnel involved in the transport of nuclear weapons are applicably trained.

6. EFFECTIVE DATE

This Directive is effective immediately.



John J. Hamre  
Deputy Secretary of Defense

Enclosures - 2

1. References
2. Definitions

E1. ENCLOSURE 1

REFERENCES, continued

- (e) DoD Directive 5210.41, "Security Policy for Protecting Nuclear Weapons," September 23, 1988
- (f) DoD C-5210.41-M. "Nuclear Weapon Security Manual (U)" April 1994, authorized by DoD Directive 5210.41, September 23, 1988
- (g) DoD Directive 5210.42, "Nuclear Weapon Personnel Reliability Program (PRP)," May 25, 1993
- (h) DoD Directive S-3150.7, "Controlling the Use of Nuclear Weapons (U)," June 20, 1994

## E2. ENCLOSURE 2

### DEFINITIONS

E2.1.1. Abnormal Environments. Those environments, as defined in a nuclear weapon's stockpile-to-target sequence and military characteristics, in which the weapon is not expected to retain full-operational reliability.

E2.1.2. Custody. Responsibility for the control of, transfer and movement of, and access to, nuclear weapons. Custody also includes maintenance of accountability for nuclear weapons.

E2.1.3. Insensitive High Explosive (IHE). High explosive that requires a shock of more than usual strength to cause detonation.

E2.1.4. Limited-Life Component. A component used in a nuclear weapon whose performance degrades over time and that must be replaced on a periodic basis.

E2.1.5. Logistic Transport. The transport of nuclear weapons associated with peacetime deployment requirements, maintenance, quality assurance and reliability testing, and retirement.

E2.1.6. Military Requirement. An established need justifying the transport of a nuclear weapon to accomplish approved logistic actions such as deployment, maintenance, quality assurance and reliability testing, or retirement.

E2.1.7. Nuclear Weapon. A complete assembly (i.e., implosion type, gun type, or thermonuclear type) in its intended ultimate configuration that, on completion of the prescribed arming, fuzing, and firing sequence, is capable of producing the intended nuclear reaction and release of energy.

E2.1.8. Nuclear Weapon Movement. The phase of a transport operation in which a nuclear weapon is physically conveyed from one location to another location. The term "logistic movement" may be used interchangeably with "nuclear weapon movement."

E2.1.9. Nuclear Weapon Transport Operation. The process of moving a nuclear weapon from one location to another location, including the activities necessary to authorize the movement, plan the movement, prepare the weapon for movement, move the weapon, and receive the weapon at its destination.



E2.1.10. Transport Mode. The type of conveyance (e.g., air, waterborne, and ground) used to move a nuclear weapon from one location to another location.